Tubes Are Welded by Means of High-frequency Current

S/029/60/000/06/16/020
B008/B007

to 3 mm. The new technique is considerably more rapid than all other welding techniques. The specific power consumption is lower than in the case of electric resistance- and arc welding. The new technique is especially effective in the production of tubes from stainless steel having wall thicknesses of between 1 and 3 mm. There is 1 figure.

ASSOCIATION: Laboratoriya svarki Moskovskogo trubnogo zavoda (Welding Laboratory of the Moscow Tube Mill)

Card 2/2

GOLOVKIN, R.

Using high-frequency currents for pipe welding. Tekh.mol. 28 no.6:34 '60. (MIRA 13:7)

1. Nachal'nik laboratorii svarki Moskovskogo trubnogo zavoda.
(Induction heating) (Pipe—Welding)

S/125/60/000/010/011/015
A161/A133

AUTHORS: Konyushenko, A.T., Golovkin, R.V., Tseytlin, Kh.A., Strunkin, V.A.

TITLE: Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 10, pp.67-71

TEXT: The fabrication of titanium tubes by pressing is connected with high metal waste and tool consumption. In view of this fact and of the growing demand of the chemical industry in titanium pipes, the Moskovskiy trubnyy zavod (Moscow Tube Plant) has carried out tests in 1958 to fabricate these tubes by welding, and a technology has been developed for the welding of tubes of 12, 16, 25, 38 and 76 mm in diameter and 1-2 mm wall from BT1 (VT1) titanium. High-grade argon was used for shielding in the way described in a work that will soon be published (Ref.1) and which concerns the welding of tantalum. It is known from another work (Ref.2) that titanium is resistant to HCl solutions being continually saturated with chlorine, but no information could be found in literature (Ref.3-6) on the behaviour of titanium

Card 1/5

S/125/60/000/010/011/015
A161/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

welds. VT1 titanium tubes of 25 mm diameter and 1.5 mm wall were welded with 160 amp, 12 volt current and 0.6 m/min welding speed, using 4 mm diameter electrodes and a 12 mm diameter nozzle, while the argon consumption was 9 liter/min on the arc and 6 liter/min in the blast. The test specimens were rings cut from the tubes and placed into glass test tubes on glass hooks. Chlorine was blown continually through the test solution (water solution). A test lasted 200 hours. The resistance of the metal was measured by the loss of weight, mechanical properties and microstructure. A corrosion rate of only 0.01 mm per year was found in a 5% HCl solution at 90°C, and 0.1 mm per year in a 20% solution at 60°C. The resistance in fumes was several times higher. The corrosion rate remained practically constant. The microstructure of all specimens was: cast metal of coarse-acicular shape in the weld zone, and fine spherical grain shape with twins in base metal (Fig.2,3). The test results prove the applicability of welded VT1 titanium equipment or tubes in HCl being continually saturated with chlorine; a 5% HCl concentration is permissible for work in temperature not higher than 90°C, and a 20%

Card 2/5

L 06188-67 EWT(d)/EWT(l)/EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/WW/JW/RM

ACC NR: AP6027732 SOURCE CODE: UR/0020/66/169/004/0807/0809

AUTHOR: Golovina, Ye. S.; Kotova, L. L. 56 B

ORG: Power Engineering Institute im. G. M. Grizhizhanovskiy (Energeticheskiy institut)

TITLE: Laws governing high-temperature reactions of carbon 27

SOURCE: AN SSSR. Doklady, v. 169, no. 4, 1966, 807-809

TOPIC TAGS: carbon, carbon dioxide, carbon diffusion, carbon density, high temperature ~~reaction~~ phenomenon

ABSTRACT: In earlier studies the authors have observed changes in the density of carbon in the course of its interaction with chemically reactive gases at above 2300K. It was assumed that this phenomenon is a result of the diffusion of carbon atoms from the bulk to the surface of solid carbon. This assumption was confirmed by a study of carbon density distribution in carbon spheres (d., 15 mm) in the course of this interaction at various temperatures with CO_2 diluted with N_2 (CO_2 concentration, 50%; gas flow velocity, 0.6 m/sec). The diffusion coefficients (D_c) for carbon atoms in solid carbon for various temperatures were calculated by substituting the experimental density values in Gauss error integral

T, °K	2770	2770	2780	2800	2870	2870	2870	2880	2910
$D_c \cdot 10^4$, cm²/sec	0,69	0,82	2,01	3,24	4,23	1,19	4,54	6,78	8,00

Card 1/2 UDC: 541.124

L 06188-67
ACC NR: AP6027732 O

Analysis of the experimental data showed that the determined D_c values can be used for calculations. It is noted that the results of this study indicate that in the analysis of the interaction of a solid body with a chemically reactive gas the behavior of not only the gas but also that of the solid body should be taken into account. Orig. art. has: 3 figures. [W.A. 77] [BO]

SUB CODE: 07/ SUBM DATE: 09Jun65/ ORIG REF: 004/ OTH REF: 006

Card 2/2 afs

S/125/60/000/010/011/015
A161/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

concentration at temperature of not higher than 60°C. The free chlorine content must be about 0.2 g in 100 cm^3. There are 3 figures and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Moskovskiy trubnyy zavod (Moscow Tube Plant) (A.T. Konyushenko and R.V. Golovkin); NIOPiK im. Voroshilova (NIOPandK im. Voroshilov) (Kh.A. Tseytlin, V.A. Strunkin)

SUBMITTED: March 14, 1960

Card 3/5

S/125/60/000/010/011/015
A161/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

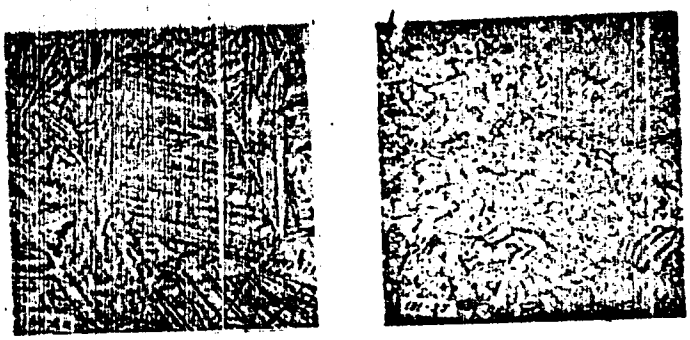
Figure 2:
The microstructure of a specimen tested for 200 hours in 20% HCl acid at 60°C (x 100): a - welding seam; b - near-weld zone; c - base metal

Card 4/5 a) b) c)

S/125/60/000/010/011/015
A161/A133

Resistance of Welded Titanium Pipes in Hydrochloric Acid Saturated with Chlorine

Figure 3:
The microstructure of a specimen tested for 200 hours in the fumes of a 20% hydrochloric acid containing chlorine, at 60°C (x 100)
a - welding seam
b - base metal



a) b)

Card 5/5

GOLOVKIN, Rostislav Vladimirovich; LUNIN, Igor' Vyacheslavovich; NIMOV, V.A., red.; UZHETSKAYA, A.L., red. izd-va; KARASEV, A.I., tekhn. red.

[Radiofrequency welding of straight-seam tubes] Radiochastotnaia svarka priamoshovnykh trub. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 74 p. (MIRA 15:1)
(Electric welding) (Tubes—Welding)

S/137/62/000/004/172/201
A154/A101

AUTHORS: Lunin, I.V.; Golovkin, R.V.

TITLE: Radio-frequency resistance welding of tubes

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 38, abstract 4E204 (Sb. "Prom. primeneniye tokov vysokoy chastoty v elektrotermii", M. - L., Mashgiz, 1961, 85 - 90)

TEXT: NIITVCh im. V.P. Vologdin is developing in conjunction with the Moskovskiy trubnyy zavod (Moscow Tube Plant) the technology and equipment for making tubes from stainless and carbon steels by h-f resistance welding. The use of current in the radio-frequency band makes it possible to achieve a greater concentration of energy than in exisitng pipe-welding methods. Radio-frequency resistance welding of carbon steel pipes makes a fusion process possible. Due to the small volume of molten and heated metal the amount of burr is small. By this method tubes from stainless steels and alloys may be welded at speeds many times greater than those possible with existing methods, and a weld whose anticorrosion and mechanical properties differ little from those of the base metal may be ob-

Card 1/2

Radio-frequency resistance welding of tubes

S/137/62/000/004/172/201
A154/A101

tained immediately after the welding.

V. Klyuchnikova

[Abstracter's note: Complete translation]

Card 2/2

POLUKHIN, P. I., prof., doktor tekhn. nauk; OSADCHIY, V. Ya., kand. tekhn. nauk; KIMOV, V. A., inzh.; GOLOVKIN, R. V., inzh.; KRICHEVSKIY, Ye. M.

Experimental investigation of power parameters of electric pipe welding machines. Sbor. Inst. stali i splav. no.40:451-459 '62. (MIRA 16:1)

1. Moskovskiy institut stali i Moskovskiy trubnyy zavod.

(Electric welding--Equipment and supplies)

GOLOVKIN, R. V., inzh.; SHEVAKIN, Yu. F., doktor tekhn. nauk

Resistance welding of pipe by means of high-frequency currents. Sbor. Inst. stali i splav. no.40:460-464 '62. (MIRA 16:1)

1. Moskovskiy trubnyy zavod i Moskovskiy institut stali.

(Pipe—Welding)

KONYUSHENKO, A.T.; GOLOVKIN, R.V.; GOL'BERG, V.Ya.; ORLOV, Ye.D.

Radio-requency welding of straight-seam tubes on the 6-32 machine. Metallurg 8 no.10:24-26 O '63. (MIRA 16:12)

1. Moskovskiy trubnyy zavod.

TRET'YAKOV, Fedor Yakel'yanovich; GOLOVKIN, Rostislav Vladimirovich; GOL'BERG, Viktor Yakovlevich

[Making welded pipes of titanium and its alloys] Proizvodstvo svarnykh trub iz titana i ego splavov. Moskva, Izd-vo "Metallurgiia," 1964. 53 p. (MIRA 17:6)

ACCESSION NR: AP4009281 S/0125/64/000/001/0021/0024

AUTHOR: Konyushenko, A. T.; Golovkin, R. V.; Kononova, V. L.; Shevakin, Yu. F.

TITLE: Investigating resistance welding of tubing at 300 cps

SOURCE: Avtomaticheskaya svarka, no. 1, 1964, 21-24

TOPIC TAGS: welding, resistance welding, tube welding, 300 cps resistance welding, tube resistance welding

ABSTRACT: An investigation of the possibility of manufacturing welded 8-16-mm tubing equal in strength to seamless tubing is reported. At 100, 200, and 300 cps, tubing (146 batches) was experimentally welded at a rate of 30-87 m/min. It was found that the ultimate strength of the tubing welded at 300 cps was 50 kg/mm^2, and that almost all the specimens broke outside the weld. Specimens 28×0.8-mm welded at 60-70 m/min rate withstood pressures up to 250 atm. A

Card 1/2

ACCESSION NR: AP4039281

frequency of 500 cps is recommended for small- and medium-diameter tubing with 1-3-mm thick walls. The 70-80-m/min rate permits increasing the productivity of the "6-32" tube-welding machine by 20-25%. The inside flash proved to be solid, easy-contoured, 0.3-0.4-mm or less high. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Moskovskiy trubnyy zavod (Moscow Pipe Works); Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 28May63 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: MI NO REF SOV: 003 OTHER: 000

Card 2/2

GOLOVINKIN, V.; GNILOVSKOY, D.; KOTLYARSKIY, A.

Conveyers must have a full load! Prom.koop. 14 no.3:27-28 Mr '60. (MIRA 13:7)

1. Rukovoditel' sektora remonta Nauchno-issledovatel'skogo tekhnokhimicheskogo instituta (for Golovkin). 2. Starshiye inzhenery sektora remonta Nauchno-issledovatel'skogo tekhnokhimicheskogo instituta (for Gnilovskoy, Kotlyarskiy).
(Shoe industry)

GOLOVKIN, V., general-leytenant

Guidance of the Communist Youth League is the prime objective of political organizations and party groups. Komm.Vooruzh.Sil 3 no.22:35-41 N '62. (MIRA 15:12)

1. Chlen Voyennogo soveta - nachal'nik politicheskogo upravleniya Kiyevskogo voyennogo okruga.
(Russia--Army--Political activity)
(Communist Youth League)

GOLOVKIN, V., general-leytenant

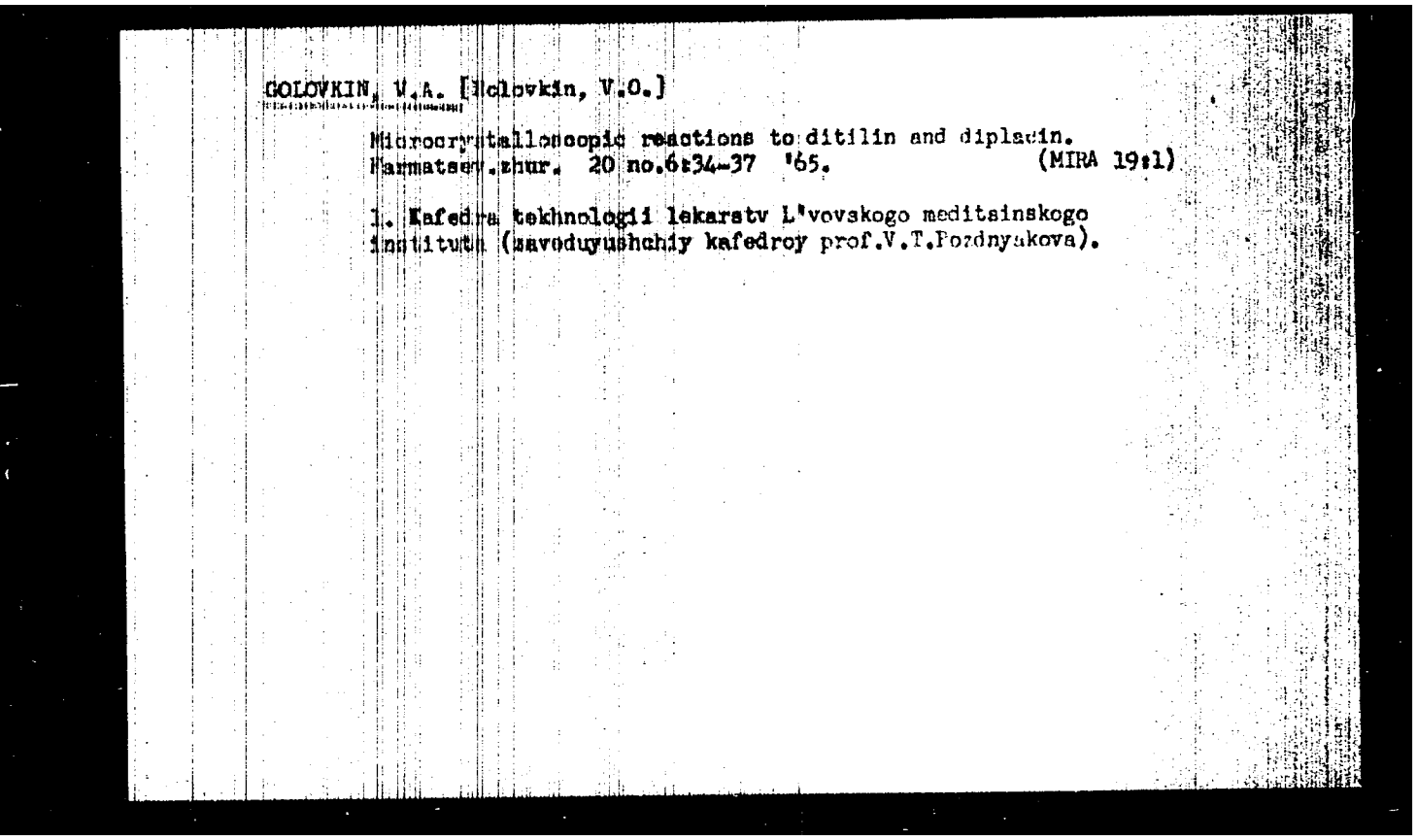
Organizational work, the key to success. Komm. Vooruzh. Sil 46 no.19:19-26 O '65. (MIRA 18:12)

1. Chlen Voyennogo soveta, nachal'nik politicheskogo upravleniya Kiyevskogo voyennogo okruga.

POZDNYAKOVA, V.T.; GOLOVKIN, V.A.

Identification of benzamon with the aid of microcrystalloscopy and crystal optics. Apt. delo 14 no.5:60-62 S-O '65. (MIRA 18:11)

1. L'vovskiy meditsinskiy institut.



GOLOVKIN, V.A. [Holovkin, V.O.]

Microcrystalloscopic reactions to ditilin and diplacin.
Farmatsev.zhur. 20 no.6:34-37 '65. (MIRA 19:1)

1. Kafedra tekhnologii lekarstv L'vovskogo meditsinskogo instituta (zavoduyushchiy kafedroy prof.V.T.Pozdnyakova).

GOLOVKIN, V.A. [Holovkin, V.O.]

Reactions for dicoline and tetamon identification and their use in testing medicinal forms. Farmatsev. zhur. 20 no.5: 47-50 '65. (MIRA 18:11)

1. Kafedra tekhnologii lekarstv L'vovskogo meditsinskogo instituta; zaveduyushchiy kafedroy prof. V.T. Pozdnyakova. Submitted November 25, 1964.

GOLOVKIN, V.D.

River regulation. Put' i put. khoz. 7 no.5:34-35 '63.
(MIRA 16:7)

1. Nachal'nik distantsii, Glazov, Gor'kovskoy dorogi.
(Railroad engineering)
(Rivers—Regulation)

GOLOVKIN, V.F., kand.tekhn.nauk

Load concentration in straight bevel gears. Vest. mashinostr. 46 no.1:18-27 Ja '66. (MIRA 19:1)

GALKOVSKAYA, M.G., kand.tekhn.nauk; MAUMOV, A.I.; PYATLIN, A.A.; SVIRIDOV, A.A.; SEDOV, F.G.; KHODUNOV, M.Ye., kand.yurid.nauk; SHANCHUROV, P.N., kand.tekhn.nauk; SOYUZOV, A.A., prof., doktor tekhn.nauk, red.; GOLOVNIKOV, V.I., kand.tekhn.nauk, red.; ZOTOVA, V.V., kand.tekhn.nauk, red.; SEMENOV, Yu.K., red.; ALEKSEYEV, V.I., red.izd-va; YERMAKOVA, T.T., tekhn.red.

[River navigator's manual] Spravochnik shturmana rechnogo flota. Pod obshchei red. A.A.Soiuzova. Moskva, Izd-vo "Rechnoi transport," 1960. 631 p. (MIRA 13:7)
(Inland navigation)

YUMIN, Nagamail Aleksandrovich, kand. tekhn. nauk, dots.; ARTAMONICHEV, Aleksandr Nikolayevich, kand. tekhn.nauk, dots.; MISHINA, Mariya Nikolayevna, kand. tekhn. nauk, dots.; RAGOZIN, Boris Kupriyanovich, kand.tekhn. nauk; GOLOVNIKOV, V.I., st. nauchn. sotr., kand. tekhn. nauk, retsenzent; BUCHIN, Ye.D., st. nauchn. sotr., retsenzent; REZNICHENKO, U.S., st.prep., retsenzent; FOMKINSKIY, L.I., inzh., red.; MORALEVICH, O.D., red.izd-va; RIDNAYA, I.V., tekhn. red.

[Organization of river fleet operations] Organizatsiia raboty flota; zadachi i raschety. Moskva, Izd-vo "Rechnoy transport," 1960. 212 p. (MIRA 16:8)

1. Zaveduyushchiy kafedroy "Organizatsiiya raboty flota i portov" Novosibirskogo instituta inzhenerov vodnogo transporta (for Yumin).

(Inland water transportation)

GOLOVKIN, V.I., inzh.

Organizing continuous assembly of elements in the complex of an oxygen-blown converter plant. Prom. stroi. 41 no.4: 12-17 Ap '64. (MIRA 17:9)

CHAPLINSKAIA, M.G. [Chaplyns'ka, M.H.]; GOLOVKIN, V.O. [Holovkin, V.S.], student

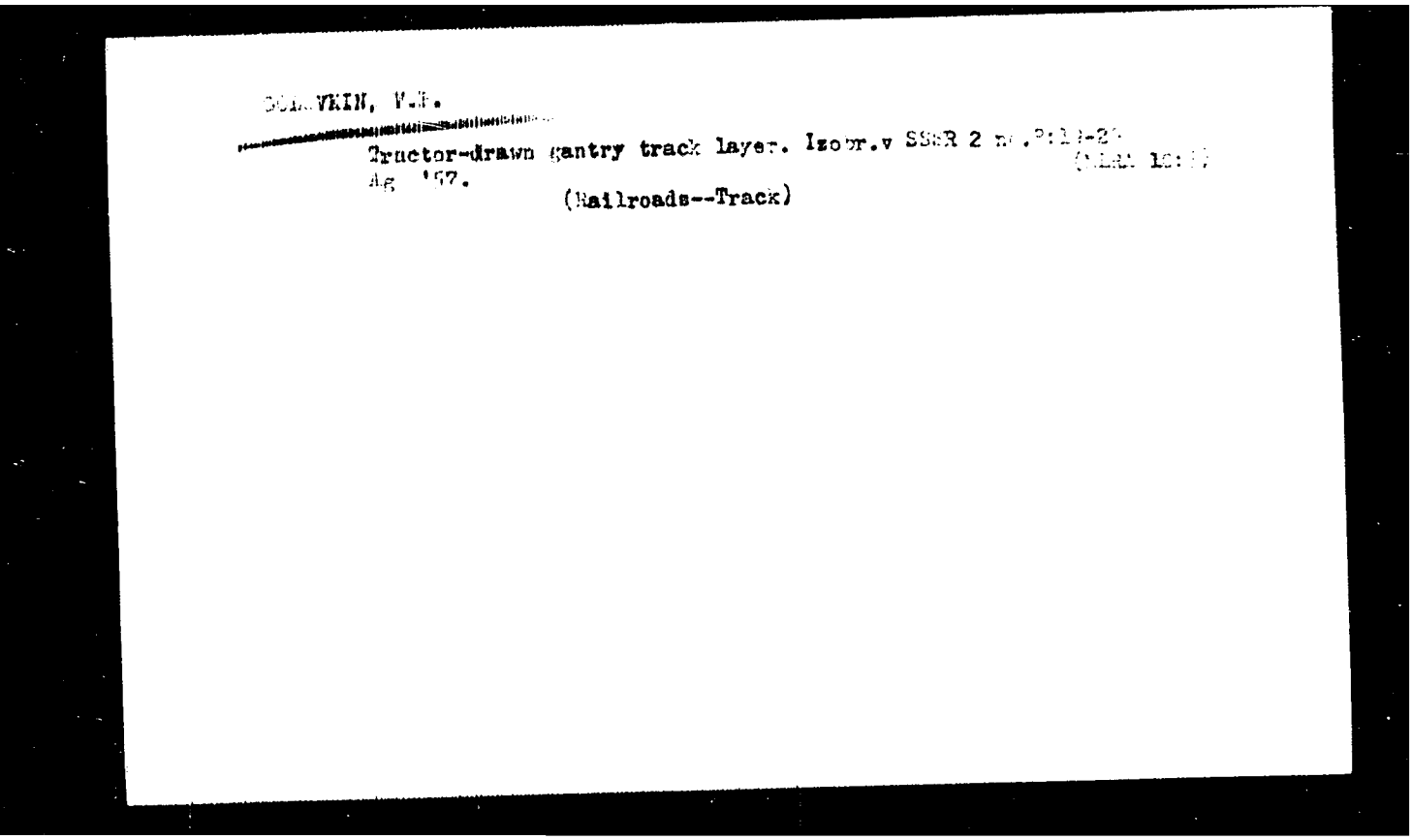
Antimicrobic effect of some extracts from calendula inflorescences. Farmatsev. zhur. 18 no.2:56-60 '63. (MIRA 17:10)

1. L'vovskiy meditsinskiy institut.

MITIN, Aleksey Mikhaylovich; GOLOVKIN, V.P., inzhener; SOROKIN, N.N., inzhener, redaktor; KANDYKIN, A.Ye., tekhnicheskiy redaktor.

[Routine maintenance of railroad tracks on a work section] Tekushchee sederzhanie puti na rabochem otdelenii. Moskva, Ges.transportnoe zheleznodorozh. izd-vo, 1954. 23 p. (MLRA 8:5)

1. Brigadir puti Orlovskoy distantsii Moskovsko-Kursko-Donbasskoy dorogi (for Mitin).
(Railroads--Track)



[redacted], V.F.

Tractor-drawn gantry track layer. Izobr.v SSSR 2 no.[illegible] (MIRA 10:1)
Ag '57.

(Railroads--Track)

RUDOCHENKO, A.V., insh.; GOLOVKIN, V.P., insh.

New method of strengthening wheel rims. Elek. i tepl.tiaga 2 no.4:28 Ap '58. (MIRA 12:3)

(Car wheels)

GOLOVKIN, V.P., inzh.; BULGAK, Ye. V., inzh.

Scraper winch. Put' i put. khoz. no. 7:44 Jl '58. (MIRA 11:7)
(Winches)

GOLOVKIN, V.P., inzh.

Cantilever cranes to be installed in window openings. Mekh. stroi 15 no.9:24 S '58. (MIRA 11:10)
(Cranes, derricks, etc.)

GOLOVKIN, V.P., inzh.; BULGAK, Ye.V., inzh.

Equipment for automatic lifting of blades and blade coverings of snowplows. Put' i put. khoz. no.3:38 Mr '59. (MIRA 12:6)

(Railroads—Equipment and supplies)
(Railroads—Snowplows)

GOLOVKIN, V.I.

Let's improve the large-block assembly of structural elements.
Prom. stroi. 39 no.10:27-30 O '61. (MIRA 14:10)

1. Trest Donbasstal'konstruktsiya.
(Building machinery)

70-3-2-3/26

AUTHORS: Lyashchenko, B.G., Litvin, D.F., Puzey, I.M., Abov, Yu.G. and Golovkin, V.S.

TITLE: Investigation of the Defect Structure of Metallic Monocrystals by a Neutron Diffraction Method (Izucheniye defektnoy struktury metallicheskikh monokristallov neytronograficheskim metodom)

PERIODICAL: Kristallografiya, 1958, Vol.3, Nr 2, pp 148 - 154 (USSR).

ABSTRACT: A neutronographic investigation of the fragmentary structure of single crystals of nickel alloys has been made and the effect of this structure on the character and intensity of the scattered neutron beams is demonstrated. A short review of work on the neutronographic investigation of the structures of synthetic single crystals is included.
One of the consequences of the low absorption of neutrons in most materials is the importance of secondary extinction. Bacon has shown that, for X-ray formulae to apply, the dimensions of a single mosaic crystal should be proportional to the width of the Darwin curve (angular distribution of the mosaic blocks). For KBr with a Darwin width of less than 3' this limiting thickness is 1.5 - 2 mm. The effect of volume defects of dimensions greater than those of the mosaic blocks is of interest and

Card1/3

Investigation of the Defect Structure of Metallic Monocrystals by a Neutron Diffraction Method

leads to the break-up of diffraction spots into small patches. 14 specimens of monocrystals have been examined. They were alloys of Ni and Fe with different quantities of Mo, Cr and Cu. The spherical specimens were etched with a mixture of nitric and hydrochloric acids and vacuum annealed for 4 hours at 750 °C. The orientation of the crystals could be seen from the Laue patterns. Finer orientation was achieved with a magnetic method to 1-2°. The spheres were finally polished so that the maximum differences in diameter were less than 1 μ in 7-12 mm. The axes were marked on the surface with gold spots electrolytically deposited. The composition was checked on sliced-up specimens. Investigations were carried out on the single-crystal neutron spectrometer of the Ac.Sc. USSR, the method being similar to that used by Lowde. The accuracy of the intensity measurements was about 1%.

Most specimens showed anomalous reflection curves. Contour plots were made of various reflections. Diagrams for the 020 reflection of two Ni-Fe alloys are reproduced. For one specimen, there was a difference amounting to a factor of 2.5 between the intensities of reflections hkl and $\overline{hkl}$. Investigating

 this effect, a small slit was scanned across the diffracted

70-3-2-3/26

Investigation of the Defect Structure of Metallic Monocrystals by a Neutron Diffraction Method

beam. The effect was shown not to be due to multiple diffraction. X-ray investigation of the specimen disclosed appreciable boundary regions separating fragments disoriented by up to 20'. This caused the reflections $\bar{2}22$, $2\bar{2}2$, $22\bar{2}$ and $\bar{2}\bar{2}2$ to come only from one fragment and $\bar{2}\bar{2}2$, $\bar{2}2\bar{2}$, $2\bar{2}\bar{2}$ and 222 to come from the other.
There are 5 figures, 1 table and 13 references, 4 of which are Soviet, 9 English.

ASSOCIATION: Institut metallofiziki (Institute of Metal Physics)

SUBMITTED: June 3, 1957

Card 3/3

66411
SOV/20-128-6-15/63

24.7900

AUTHORS: Bykov, V. N., Golovkin, V. S., Ageyev, N. V., Corresponding Member, AS USSR, Levdik, V. A., Vinogradov, S. I.

TITLE: On the Magnetic Structure of Chromium

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1153-1156 (USSR)

ABSTRACT: Brief mention is first made of previous investigations made in this field. To obtain clearer concepts concerning diffraction, monocrystalline chromium samples were used in a purity degree of 99.9667%. Octahedric monocrystals (sizes of from 3 to 5 mm) were adjusted on a two-armed geniometer of type GD-1, and lack of blocks was controlled by X-ray structural analysis. The recording took place in the planes (100), (110), (111), (210), through an angle extending to 40°. Diffraction on chromium monocrystals offers a clear picture of the splitting of the magnetic reflection in the (100) plane. Position and analysis of intensity in the medium triplet peak showed that this peak is the second order of the nuclear reflection on (200). The two outer peaks are evidently the split magnetic reflection on (100). A picture taken at temperature -100°C reveals an important in-

Card 2/3 Card 1/3

...nomalous
...limits due to
...cerning the scatter-
...surements are well repro-
... monocrystalline chromium. On the
...ued agree with concepts of the magnetic
...wn supply substantial integrations leading

On the Magnetic Structure of Chromium

66411
SOV/20-128-6-15/63

beyond the prevailing interpretation. The magnetic lattice of chromium is no repetition of the crystal lattice, but is deformed to a tetragonal symmetry. Certain directions are correlated with a minimum of energy which becomes crystallographically noticeable as a deviation of the magnetic lattice parameters from the nuclear lattice, i.e. by a certain degree of tetragonality of the magnetic lattice. The even peaks of split reflection on (100) agree with nuclear reflection as to the width, and they have at all temperatures the same distance from the theoretical position. The author thanks V. A. Trapeznikov for having supplied the chromium monocrystals. There are 4 figures and 13 references, 4 of which are Soviet.

SUBMITTED: July 6, 1959

4

Card 3/3

GOLOVKIN, V. S., LEVDIK, V. A., VINOGRADOV, S. I., BYKOV, V. N.

"The Problem of the Magnetic Structure of Chromium."

paper presented at the Symposium of the International Atomic Energy Agency on Pile Neutron Research in Physics, Vienna, 17-21 Oct 1960.

GOLOVKIN, V.S

70-5-11/31

AUTHORS: Bykov, V.M., Vinogradov, S.I., Levdik, V.A. and Golovkin, V.S.

TITLE: A Two-crystal Neutron Spectrometer (Dvukhkristal'nyy Neytronnyy spektrometr)

PERIODICAL: Kristallografiya, 1957, Vol.2, No.5, pp. 634-638 (USSR)

ABSTRACT: The Soviet atomic pile used for power generation will provide a flux of 2. 10^{13} neutrons/sec cm^2 which can be used for diffraction. A 5 m steel tube emerges through the shielding and provides a naturally collimated beam of 24' divergence. The integrated thermal neutron flux falling on the monochromator is 10^7 neutrons/cm^2 sec. The monochromatisation is by reflection from the 200 plane of a lead crystal 135 x 55 x 20 mm. The half width of the reflected beam is usually 3' corresponding to an energy uncertainty of 9%. There may also be 2.5% diffusely scattered neutrons. After monochromatisation the flux is about 10^4 neutrons/cm^2 sec. The lead crystal which is behind 80 cm of concrete can be moved in any required direction to direct the beam down the final collimator which is made of paraffin and boron carbide. The apparatus is more properly called a diffractometer as the reflected intensities are measured on a boron trifluoride counter and recorded as in X-ray diffractometry. The specimen counter distance is

Card1/2

A Two-crystal Neutron Spectrometer. 70-5-11/31

20 - 100 cm. Angles can be measured on a 110 cm dia. circle to 2'. A specimen to counter rotation ratio of 1:2 is provided. The counter has a diameter of 2 cm and a length of 27 cm; it is filled to 700 mmHg with BF_3 enriched 4.7 % in B^{10}. A test crystal of KBr of dimensions 6 x 6 x 8 mm gave peak counts of 3 100/min (200 reflection) with a uniform background of about 100/min and very satisfactory resolution. An iron rod (8 mm dia.) which was polycrystalline, gave peaks of 200/min with a background of 20/min. Acknowledgments to A.K. Krasin, V.S. Lyashenko and L.S. Gudkov.
There are 6 figures and 5 references, 2 of which are Slavic.

SUBMITTED: March 24, 1957.

AVAILABLE: Library of Congress

Card 2/2

L 11952-66 [illegible] IJP(c) JD/JG

ACC NR: AP5026598 SOURCE CODE: UR/0056/65/049/004/1083/1090

AUTHORS: Golovkin, V. S.; Bykov, V. N.; Levdik, V. A.

ORG: None

TITLE: Anomalies in the magnetic structure of chromium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 4, 1965, 1083-1090

TOPIC TAGS: chromium, magnetic structure, line splitting, neutron diffraction, single crystal, magnetic moment, antiferromagnetism

ABSTRACT: This is a continuation of earlier work (Doklady AN SSSR v. 128, 1153, 1959), where the authors suggested the possible existence of a magnetic structure in chromium. To check on this hypothesis, and also in view of discrepancies in the previously published data on magnetic splitting of the neutron-diffraction peaks of chromium, the authors undertook a new investigation to confirm the existence of anomalies of a magnetic scattering by chromium. The sample was single-crystal chromium (99.96 per cent pure) grown from chromium iodide. To determine the contribution of the magnetic intensity to the superstructure sites, the intensity of the (100), (010), and (001) peaks was meas-

Card 1/2

L 11957-66

ACC NR: AP5026598

ured by neutron diffraction in the temperature range 317--100K. The magnetic moment per atom was calculated from the total intensity, without the need for correcting for secondary extinction, and was found to be 0.042 ± 0.02 Bohr magnetons, in good agreement with earlier results on chromium. The presence of thermal hysteresis was verified and its temperature dependence measured. Attempts were made to analyze the causes of non-uniform distribution of magnetic intensity with respect to the directions in the single crystal. The experimental results are discussed in terms of two models of the antiferromagnetic structure of chromium involving sinusoidal modulation, the one-domain and three-domain versions. It is shown that arguments can be presented in favor of each version. Authors thank A. I. Leyfunskiy and V. M. Agranovich for helpful discussions. Orig. art. has: 9 figures, 1 formula, and 2 tables.

SUB CODE: 20/ SUBM DATE: 26May65/ NR REF SOV: 003/ OTH REF: 004

Card 2/2

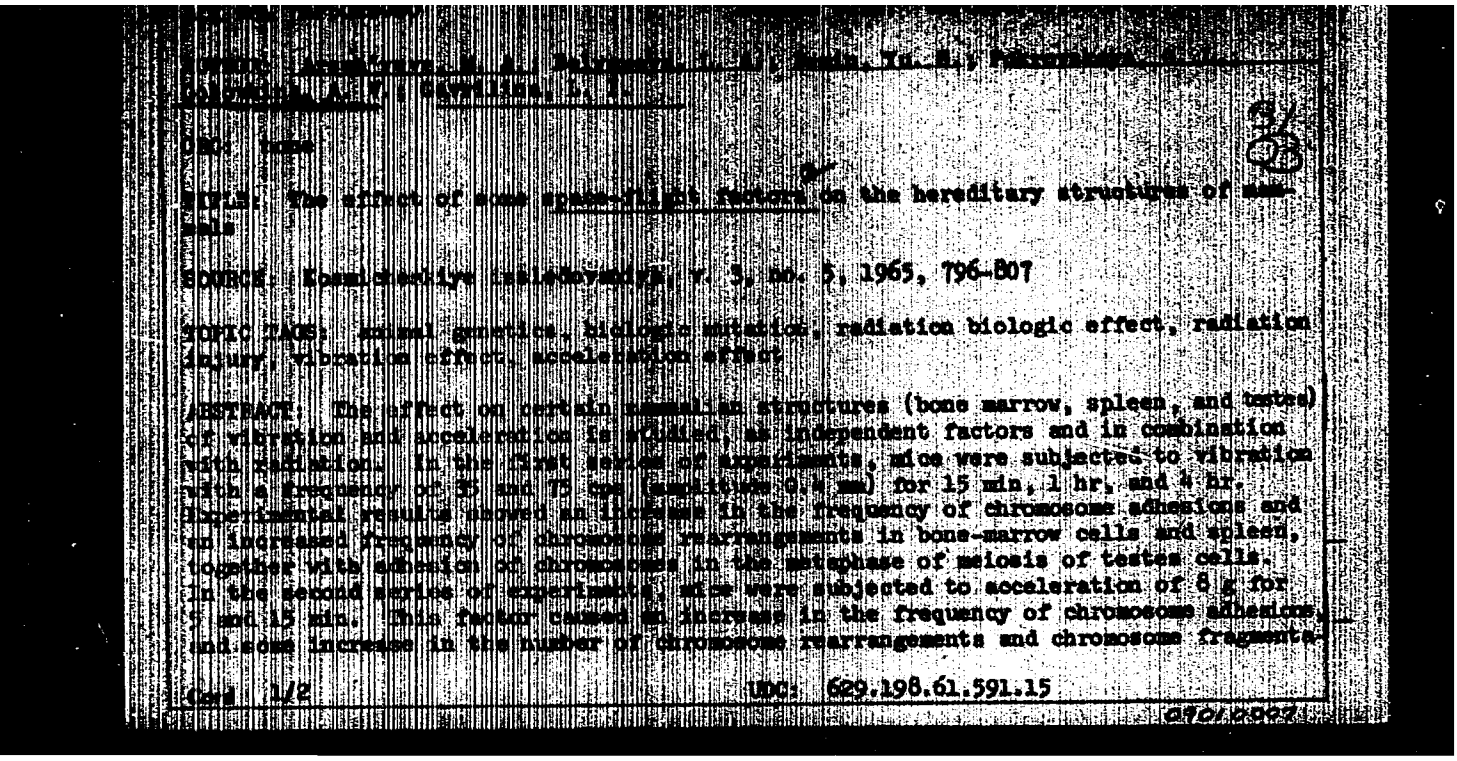
GOLOVKIN, V.T., inzh.

Gas turbines in power networks of the furnaces of metallurgical plants. Trudy NTO chern. met. 20:166-171 '60. (MIRA 13:10)

1. Leningradskiy filial Tsentral'nogo proyektno-konstruktorskogo byuro tresta Energochermet.
(Metallurgical plants) (Gas turbines)

ARSEN'YEVA, M.A.; BELYAYEVA, L.A.; GOLUVKINA, A.V.

Effect of the combined action of accelerations, vibration and radiation on cell nuclei of the bone marrow in mice. Probl. kosm biol. 4:373-390 '65. (MIRA 18:9)



AUTHOR: [illegible]

ORG: none

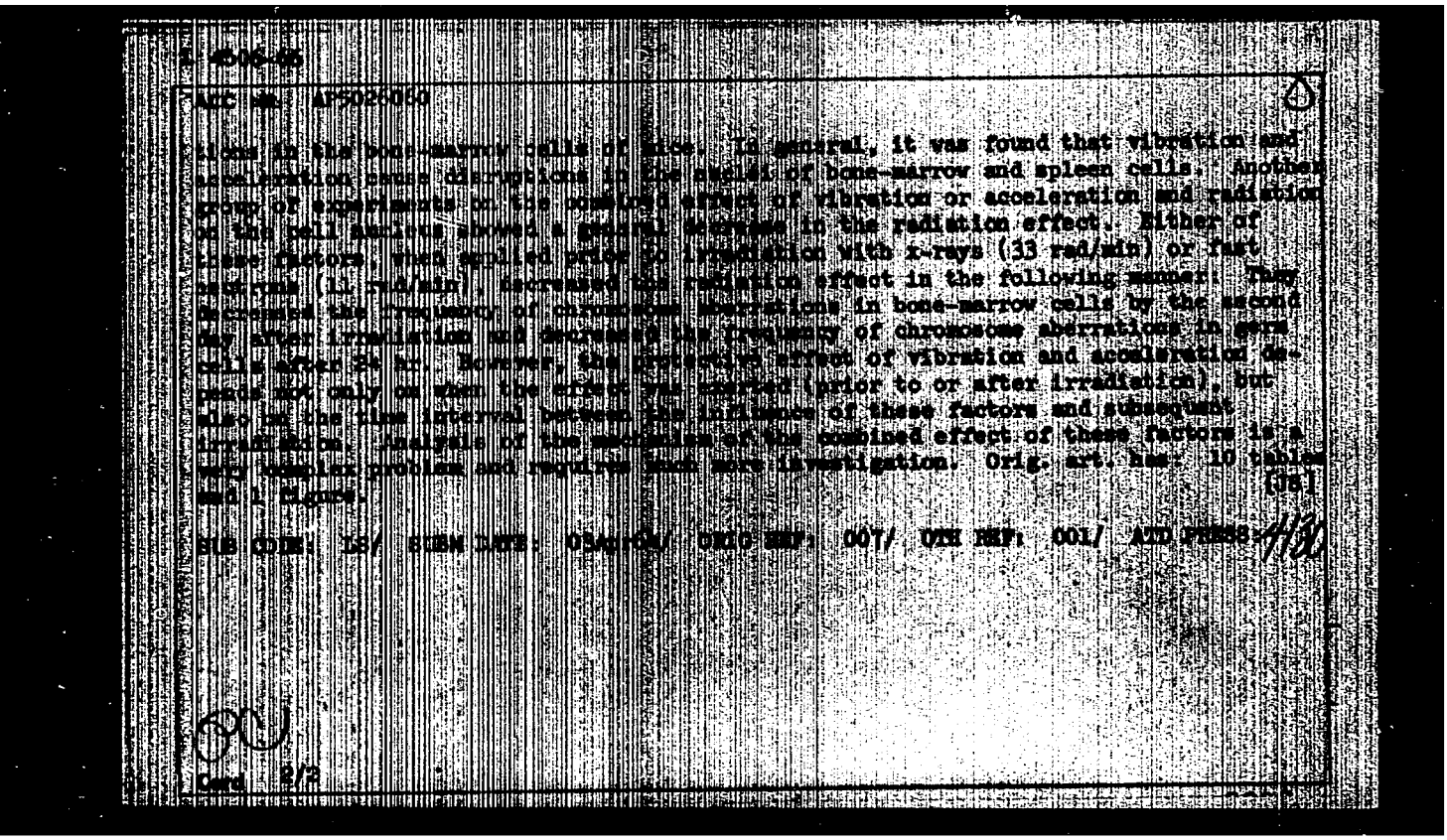
TITLE: The effect of some space-flight factors on the hereditary structures of mammalian cells

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 5, 1965, 796-807

TOPIC TAGS: animal genetics, biologic mutation, radiation biologic effect, radiation injury, vibration effect, acceleration effect

ABSTRACT: The effect on certain mammalian structures (bone marrow, spleen, and testes) of vibration and acceleration is studied, as independent factors and in combination with radiation. In the first series of experiments, mice were subjected to vibration with a frequency of 45 and 75 cps (amplitude 0.4 mm) for 15 min, 1 hr, and 4 hr. Experimental results showed an increase in the frequency of chromosome adhesions and an increase in the frequency of chromosome rearrangements in bone-marrow cells and spleen, together with adhesion of chromosomes in the metaphase of meiosis of testes cells. In the second series of experiments, mice were subjected to acceleration of 8 g for 5 and 15 min. This factor caused an increase in the frequency of chromosome adhesions, and some increase in the number of chromosome rearrangements and chromosome fragments.

Card 1/2 UDC: 629.198.61.591.15



ACC NR: AP5026050

Card 2/2

L 47293-66 EWC(k)-2/EWT(1)/FCC/FSS-2 SCTB TT/DD/RD/GW

ACC NR: AP6031663 SOURCE CODE: UR/0216/66/000/005/0625/0643

AUTHOR: Frank, G. M.; Livshits, N. N.; Arsen'yeva, M. A.; Apanasenko, Z. I.; Belyayeva, L. A.; Golovkina, A. V.; Klimovitskiy, V. Ya.; Kuznetsova, M. A.; Luk'yanova, L. D.; Meyzerov, Ye. S.

ORG: Institute of Biological Physics, AN SSSR (Institut biologicheskoy fiziki AN SSSR)

TITLE: The combined effect of spaceflight factors on some functions of the organism

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 5, 1966, 625-643

TOPIC TAGS: central nervous system, biologic oxidation, biologic metabolism, reflex activity, brain tissue, radiation effects, ~~ionizing~~ radiation biologic effect, [illegible] radiation

ABSTRACT: Results of experiments studying the combined effect of spaceflight factors (acceleration, vibration, and radiation) on some functions of the organism (brain hemodynamcis, CNS functions, and cell division of hematopoietic organs) are discussed. Tolerance of the CNS to accelerations depends significantly on changes of brain hemodynamics during accelerations. Brain blood flow in rabbits subjected to centrifugal accelerations in the head-foot direction (5 G in head region and 10 G in pelvis region) for 12 to 60 sec decreased. This reaction was insignificant during the first exposure, sharply increased during repeated exposure, and weakened after chronic exposure, thus indicating that tolerance to accelerations can be

Card 1/3 UDC: 611.8:629.195.2

L 47293-66
ACC NR: AP6031663

increased by training. Participation of CNS reflex mechanisms in these processes is probable. The 15-min exposure of guinea pigs to radial accelerations (8 G), centrifuged twice with a one-day interval, increased the spontaneous bioelectrical activity of extensor muscles; however, the effect was not lasting. It was lowered the day after the second centrifugation and was essentially the same as the control from the sixth day. The 15-min exposure of the animals to vibrations (70 cps, 0.4 mm amplitude), twice with a one-day interval, produced less distinct but more stable changes, with normalization more than 25 days after the first vibration exposure. Changes in myoelectric activity during spaceflight (Sputnik-4) incorporated features of both acceleration and vibration effects, appreciably exceeding them in intensity. Oxidation processes in brain tissues, judged by PO_2 and "oxygen test" results, were initially increased in intensity by the effect of vibrations (using the above parameters), and subsequently underwent phase changes, including depression of oxidation metabolism during the aftereffect period. Changes in unconditioned defense and vestibulotonic reflexes and upper nervous activity were observed later than 12 days after vibration. Inhibition of food-procuring conditioned and defensive unconditioned reflexes in the majority of animals, with pronounced paradoxic phenomena, was also found. Exposure to 8-, 10-, and 20-G accelerations and vibration (700 cps, 0.005 mm, 60 min) resulted in decreased mitotic activity of bone-marrow cells for 30 days. Disturbances of cell division involved chromosomal stickiness and increase in the number of chromosomal aberrations. Ionizing radiations and the above dynamic factors produced a similar effect on oxidation metabolism in brain tissues and cellular division in hematopoietic organs. They differed

Card 2/3

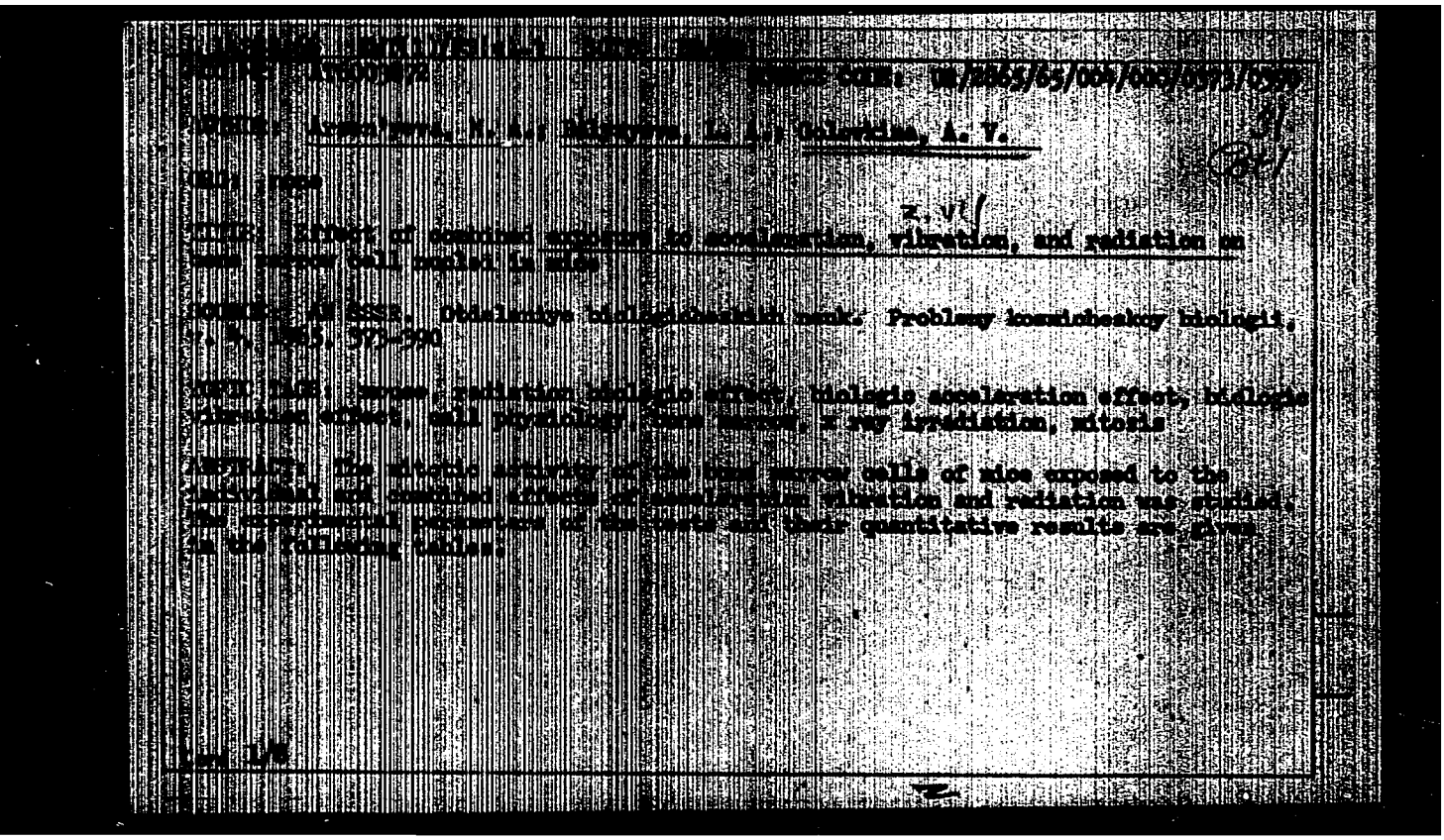
L 47293-66

ACC NR: AP6031663 O

only in the level and dynamics of changes caused. The combined effect of irradiation and dynamic factors either did not exceed or was less than the effect of each of the indicated factors separately, a phenomenon seen as a radioprotective action of dynamic factors. The relations observed are similar to phenomena of dominance and parabiosis. Typical radiation reactions were intensified when irradiation was combined with factors having directly opposed effects. The variation and complexity of results of the combination of dynamic factors and irradiation are explained by the multiplicity of the mechanisms of the combined effect of radiation and nonradiation factors. The combined exposure to vibration and whole-body acute irradiation at a lethal dose showed that in a majority of cases the vibration effect on metabolism and CNS function was dominant at early stages, while that of irradiation prevailed at later stages. At the latest stages of exposure, the combined effect of vibration and irradiation was diverse and complicated. According to some indices, the trend of changes corresponded to the effect of one of the factors while the dynamics of the processes reflected the effect of the other one. Under the uniform action of both factors, the phenomena of partial summation of weakening of the radiation effect, and in several cases of a sharp increase of radiation effect by the opposite action of the vibration effect, were observed. Probable mechanisms of the phenomena described are considered. Orig. art. has: 13 figures. [SW]

SUB CODE: 06/ SUBM DATE: 14Dec65/ ORIG REF: 032/ OTH REF: 008/ ATD PRESS: 5095

Card 3/3



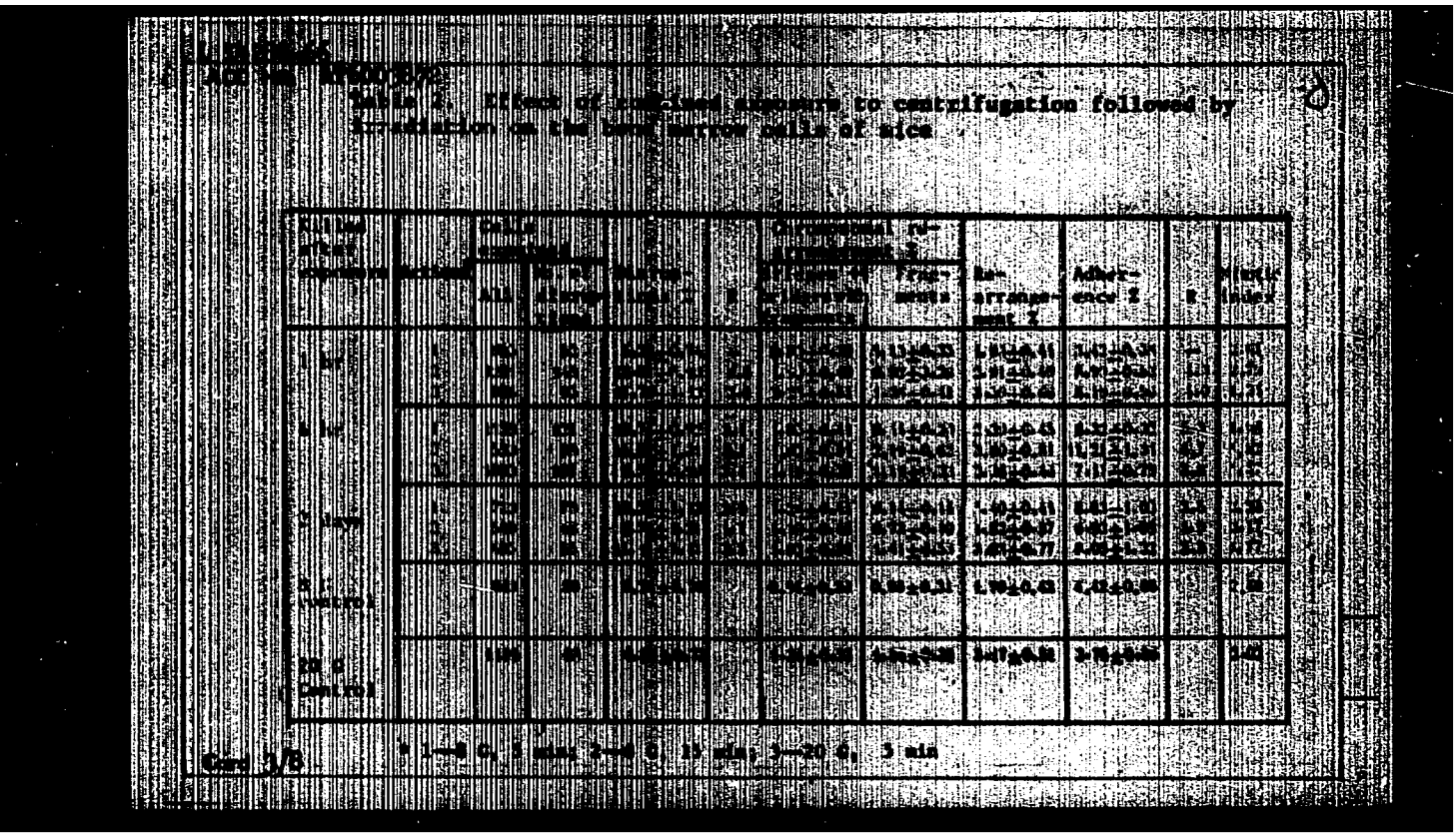
[illegible]

Table 1. Frequency of [illegible] disruptions in the bone marrow of [illegible]

[illegible]	Action	Cells: All	Cells: [illegible]	% Dis-ruptions	[illegible]	Chromosomal arrangement: [illegible]	Chromosomal arrangement: [illegible]	% Re-arrange-ment	a	% Ad-herence	Mitotic index
1 hr	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	47,11±4,04 [illegible] 30,70±3,74	— 0,6 1,1	4,12±1,81 [illegible] [illegible]	0,85 [illegible] [illegible]
4 hr	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 days	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Control	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Card 2/3



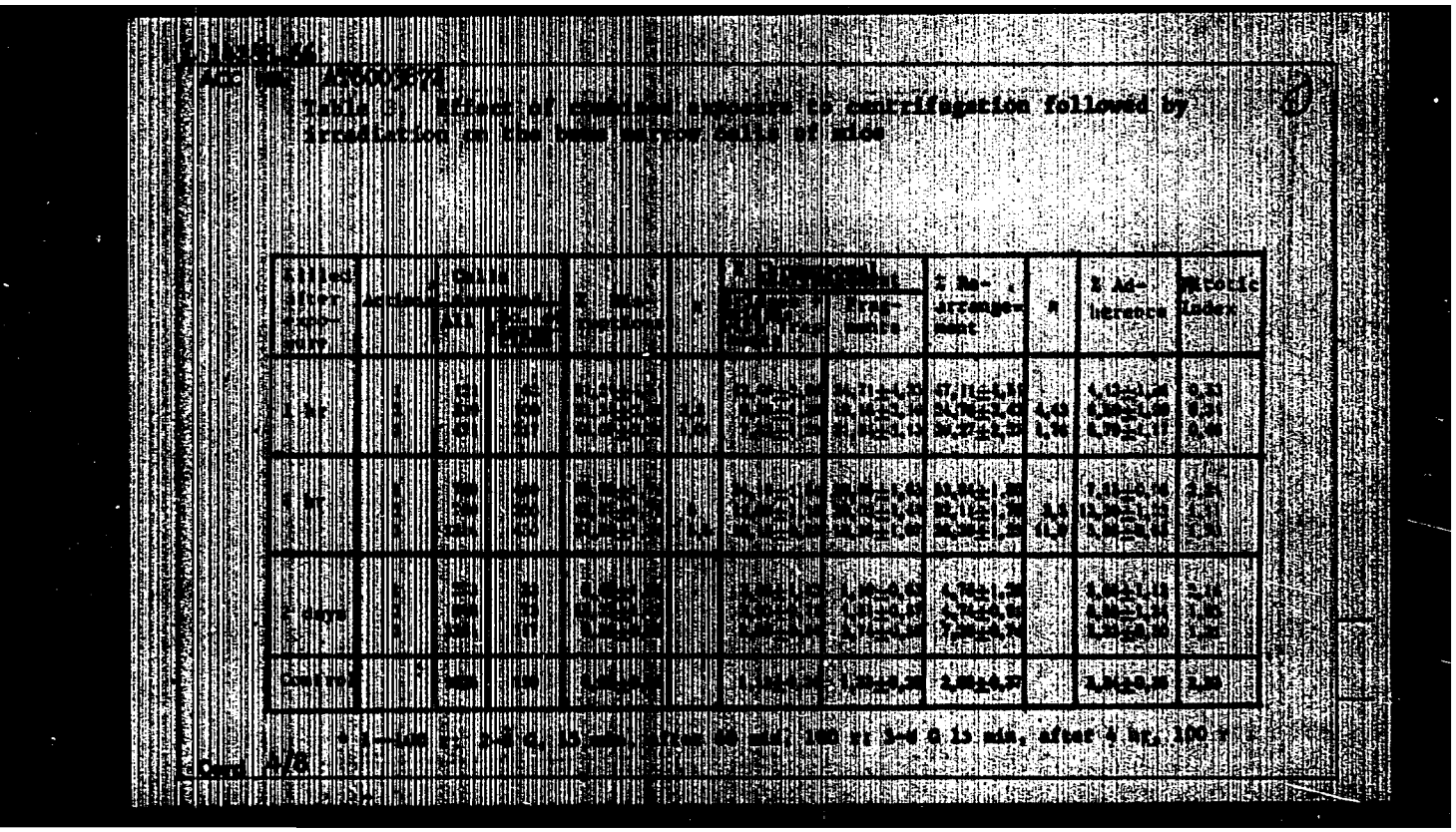


Table 4. Frequency of cell nucleus disruptions in the bone marrow after exposure to centrifugation for 30 min. and vibration for 60 min.

Day killed after exposure	Magni-tude	Cells examined: All	Cells examined: No. of aberrations	% Aber-rations	t	% Chromosomal rearrangement: [illegible]	% Chromosomal rearrangement: [illegible] with frag-ments	Frag-ments	% Re-arrange-ment	% Ad-herence	t	Mi-totic index
1st	20G 70 cps	[illegible]	[illegible]	[illegible]	— 3,7	[illegible]	— —	1,19 0,48	2,10±0,63 4,73±1,00	[illegible]±0,91 7,43±1,25	— 3,6	[illegible] 2,60
3rd	20G 70 cps	[illegible]	[illegible]	[illegible]	— 4,9	[illegible] 4,12	— 0,40	0,73 1,15	3,15±0,38 5,00±0,73	3,00±0,62 [illegible]±0,74	1,4 3,8	[illegible]
7th	20G 70 cps	[illegible]	[illegible]	[illegible]	— 2,1	[illegible]	0,38 0,13	0,80 0,33	4,72±0,78 4,27±0,73	0,80±0,33 5,10±0,79	— 3,8	[illegible]
15th	20G 70 cps	[illegible]	[illegible]	[illegible]	— —	3,77 [illegible]	0,28 —	0,39 1,88	4,42±0,74 3,05±0,63	1,85±0,30 3,05±[illegible]	— —	[illegible]
30th	20G 70 cps	[illegible]	[illegible]	[illegible]	2,2 —	[illegible] 3,72	0,10 0,32	0,85 0,32	3,51±0,82 4,30±1,15	5,35±1,00 1,57±[illegible]	2,5 —	[illegible] 3,00
Control		[illegible]	77	[illegible]	—	[illegible]	0,15	0,91	3,34±0,51	2,31±0,50	—	1,25

Card 5/8

L 18[illegible]-66

ACC NR: AP600[illegible]572

Table 5. Effect on the bone marrow cells of mice of combined exposure to centrifugation or vibration followed by x-ray irradiation after 24 hours

Day killed after exposure	Method*	Cells examined: All	Cells examined: [illegible]	% Dis-[illegible]	[illegible]	% Chromosomal rearrangements: [illegible]	[illegible]	[illegible]	% Fr-[illegible]	a	% Adherence	Mitotic index
3rd	1	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	11,48	20,00±1,95	—	1,43±0,56	1,80
	2	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	8,36	17,80±4,17	—	1,83±1,22	0,84
	3	[illegible]	[illegible]	[illegible]	—	[illegible]	[illegible]	7,64	10,74±2,96	—	2,30±1,06	0,51
7th	1	430	[illegible]	[illegible]	—	[illegible]	1,67	7,79	18,12±1,51	—	1,11±0,41	2,30
	2	47	[illegible]	[illegible]	[illegible]	[illegible]	0,24	1,61	4,87±0,06	7	4,00±0,80	2,10
	3	25	25	[illegible]	4,7	[illegible]	—	1,37	5,50±1,33	6	5,00±1,01	0,40
13th	1	[illegible]	[illegible]	[illegible]	—	[illegible]	0,13	2,56	5,09±1,03	—	1,74±0,48	3,00
	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,25	4,56	6,15±1,16	1,6	3,05±0,87	3,72
	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	1,06	3,00±0,80	4,3	4,40±1,07	3,00
30th	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,29	2,36	9,29±1,11	4,9	0,74±0,33	2,29
	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,30	2,90	7,24±1,35	2,8	3,05±0,94	3,01
	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,29	2,81	7,57±1,33	2,9	3,65±0,95	3,03
Control		1017	77	[illegible]		2,26	0,14	0,91	3,34±0,51		3,51±0,50	3,29

* 1—350 r; 2—10 g + 350 r; 3—700 cps + 350 r

Card 6/8

L 16288-66
ACC NR AT6001872

Table 6. Effect on the bone marrow cells of mice of combined exposure to x-ray irradiation followed by centrifugation or vibration 24 hours later

Day killed after exposure	Method	No. of cells examined: All	No. of cells examined: [illegible]	% [illegible]	*	Chromosomal rearrangement, %: [illegible]	Chromosomal rearrangement, %: [illegible]	Chromosomal rearrangement, %: Fragments	% Rearrangement	*	% Adherence	Mitotic index
3rd	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	0,87	11,43	20,00±1,03		1,43±0,58	1,30
	[illegible]	[illegible]	[illegible]	[illegible]	1,0	[illegible]	0,40	12,88	16,05±1,76	1,4	2,56±0,76	1,90
	[illegible]	[illegible]	[illegible]	[illegible]	0,9	[illegible]	—	10,33	12,80±1,06	3,6	4,80±2,09	[illegible]
7th	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	1,43	7,70	12,12±1,61		1,11±0,41	2,80
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,34	0,51	8,07±1,48	4,5	4,61±2,04	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8,80	12,81±1,78	2,8	1,43±0,63	2,77
15th	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	0,13	2,51	8,60±1,06		1,74±0,48	3,00
	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	0,58	1,45	9,79±1,62		1,10±0,50	2,88
	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	0,28	1,45	9,04±1,58		3,40±0,90	3,00
30th	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,20	2,38	8,29±1,11	4,9	0,74±0,38	3,30
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	1,52	8,30±1,32	3,1	—	2,40
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,30	0,50	7,08±1,30	2,3	1,74±0,65	2,09
Control		1527	[illegible]	[illegible]		[illegible]	0,15	0,01	3,34±0,51		2,51±0,50	3,25

Card 7/8 * 1—350 r; 2—350 r + 10G; 3—350 r + 700 cps

L 1A238-66

ACC NR: AT6003872

The changes in mitotic activity in bone marrow cell mitosis may reflect altered oxygen metabolism on the macro or cellular level or the effect of the physical factors tested on the sympathetic system and the secretion of adrenalin or noradrenalin. These two hormones tend to protect the organism from radiation but also depress mitotic activity. It is also possible that the physical factors themselves had a direct effect on the cellular mechanism. In general, however, it was felt that the various physiological changes occurring as a result of acceleration or vibration lead to disruptions of mitotic activity which may reflect a unique "protective" effect from radiation. Orig. art. has: 4 figures and 6 tables. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 009

Card 8/8

ACC NR: AT7002500 SOURCE CODE: UR/0000/66/000/000/0122/0130

AUTHOR: Arsen'yeva, N. A.; Golovkina, A. V.

ORG: Institute of Biological Physics, AN SSSR, Moscow (Institut biologicheskoy fiziki AN SSSR)

TITLE: Comparative analysis of the mutagenic effect of an alkylating compound (Thio TEPA) and radiation on mouse bone marrow cells

SOURCE: AN SSSR. Nauchnyy sovet Radiobiologiya. Vliyaniye ioniziruyushchikh izlucheniy na nasledstvennost' (Effect of ionizing radiation on heredity). Moscow, Izd-vo Nauka, 1966, 122-130 and inserts following p. 130

TOPIC TAGS: biologic mutation, radiation biochemical effect, radiation cell effect

ABSTRACT: A comparative analysis of the effect of radiation in a dose of 100 r and the intraperitoneal injection of Thio-TEPA in a dose of 4 mg/kg showed certain differences in the effect of these two mutagens when the bone marrow cells were studied. Thio-TEPA in the indicated dose caused an appreciably more pronounced cytotoxic and cytostatic effect than the radiation. The mutagenic effect of Thio-TEPA showed up at appreciably later periods after injection in comparison with the effect of radiation; it was found to be related with the appearance of both chromatid and chromosome aberrations. Orig. art. has: 4 tables and 5 figures. [26]

SUB CODE: 06/ SUBM DATE: 01Sep66/ ORIG REF: 002/ OTH REF: 006/ ATD PRESS: 5117

Card 1/1 UDC: none

GOLOVKINA, E.D.; PASYNKOV, V.V.; KHANINA, G.N.

Low-voltage electroluminescence of sublimated films of ZnS-Cu, Mn, Cl in a constant field. Opt. i spektr. 19 no.2: 281-283 Ag '65. (MIRA 18:8)

L 5440-66
EWT(l)/EPA(s)-2/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/WW/JG

ACCESSION NR: AP5019763

UR/0051/65/019/002/0281/0283
535.376

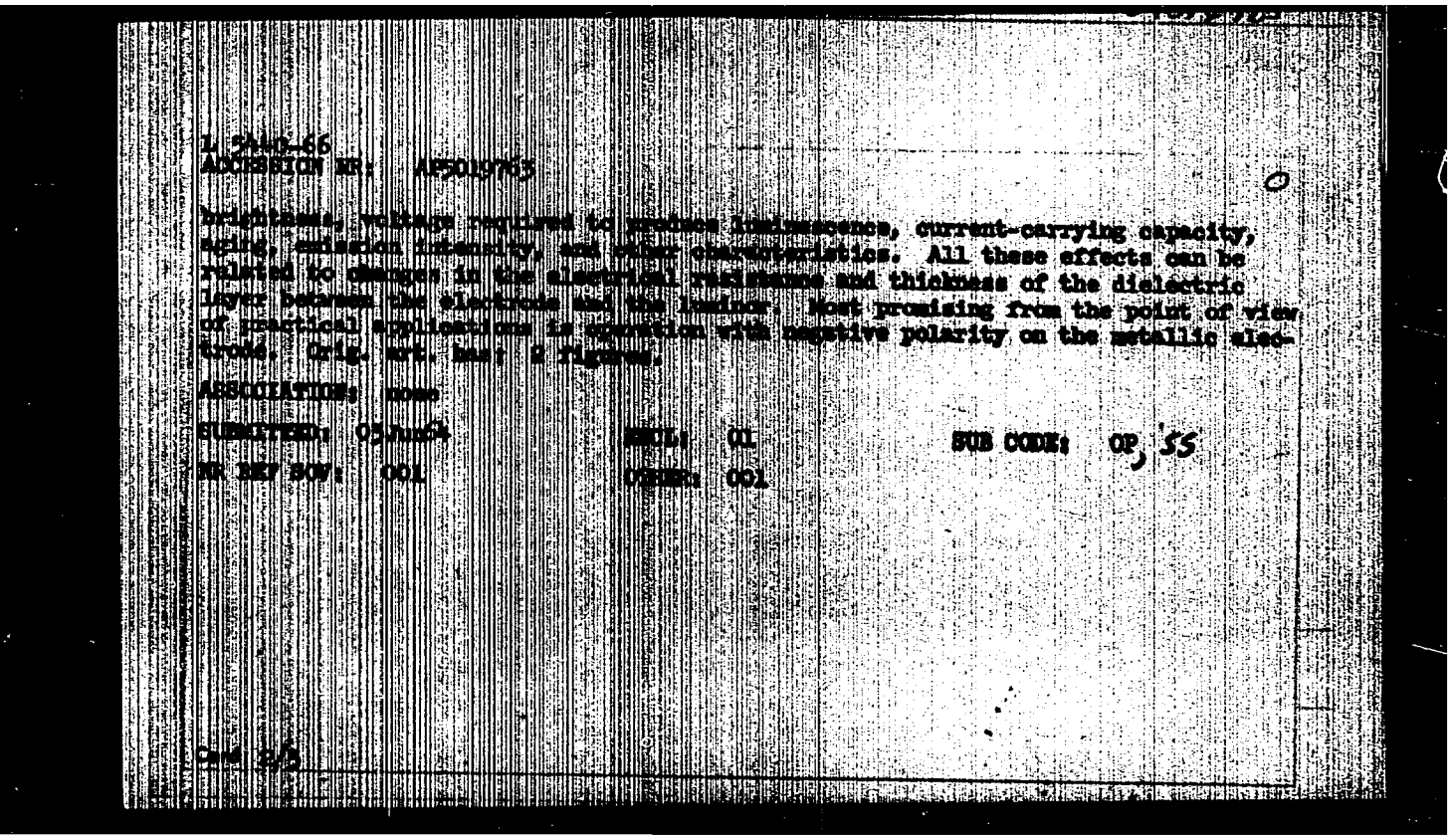
AUTHOR: Golovkina, [illegible] D.; [illegible] V. V.; Khanina, G. N.

TITLE: Low-voltage electroluminescence of evaporated ZnS-Cu, Mn, Cl films in a dc field

SOURCE: Optika i spektroskopiya, v. 19, no. 2, 1965, 281-283

TOPIC TAGS: electroluminescence, zinc compound optic material, luminor, volt ampere characteristic, optic brightness

ABSTRACT: The authors obtained thin-film specimens which became electroluminescent in a low-voltage dc field by evaporating the ready-made EL-580 electroluminor in vacuum (~5 × 10^{-5} mm Hg) on a [illegible] glass substrate with SnO_2 layer. The construction of the resultant luminor [illegible] is shown in Fig. 1 of the Enclosure, which includes the volt-ampere and volt-brightness characteristics. The over-all film thickness was [illegible]. The volt-brightness characteristics were measured by a standard technique, the brightness was measured with a selenium photocell. The specimens produced could be divided into two groups, one of which (I) became electroluminescent when the aluminum electrode was positive, and the other (II) became electroluminescent with both negative and positive polarity. The groups differed in



L 5248-66
ACCESSION NR: AP5019765

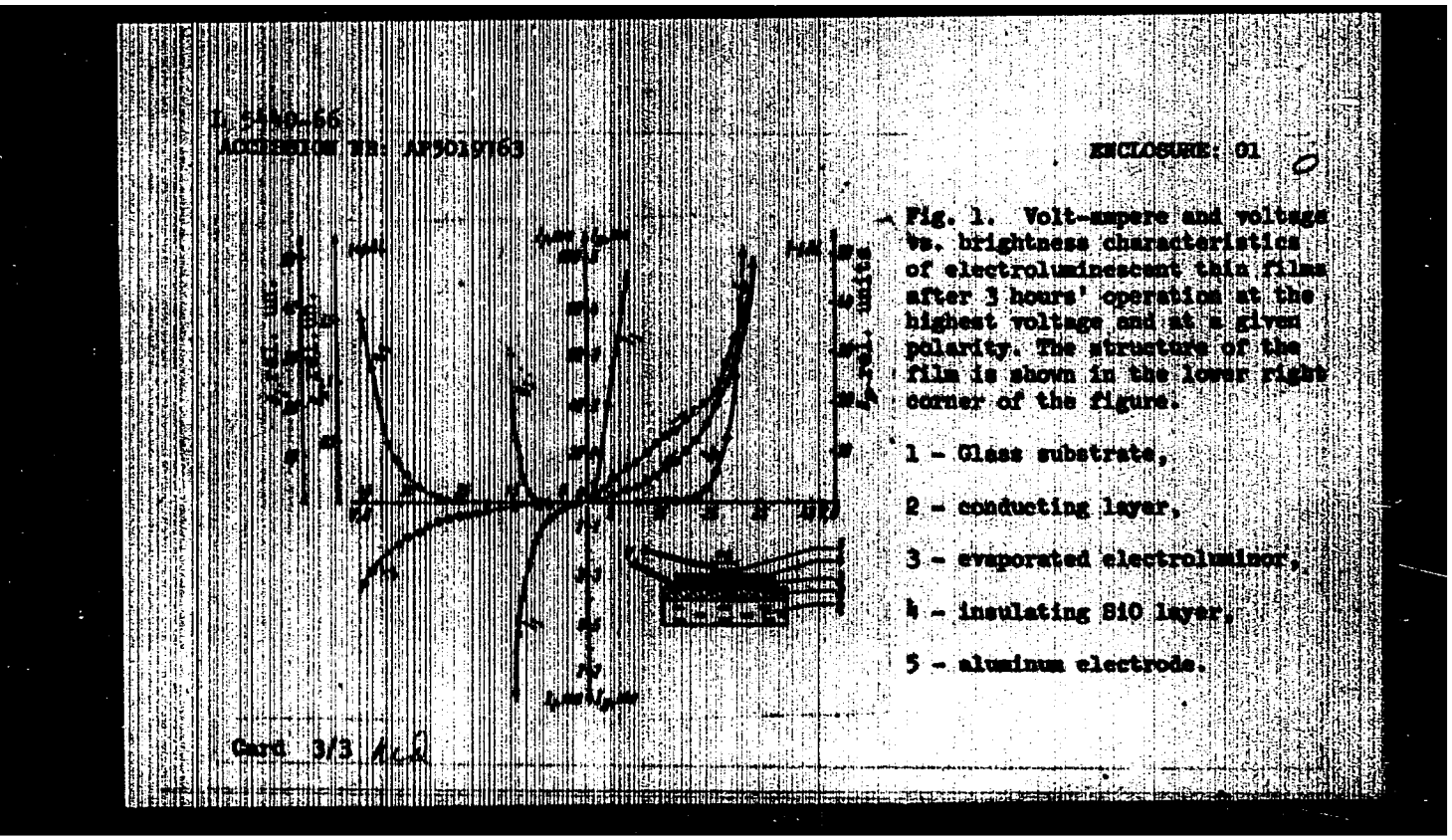
Breakdown voltage required to produce luminescence, current-carrying capacity, [illegible] emission intensity, and other characteristics. All these effects can be related to changes in the electrical resistance and thickness of the dielectric layer between the electrodes and the liquid. Most promising from the point of view of practical application is operation with negative polarity on the metallic electrode. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 05Jun64 ENCL: 01 SUB CODE: OP, SS

NR REF SOV: 001 OTHER: 001

Card 2/2



ACCESSION NR: AP5019763

ENCLOSURE: 01

Fig. 1. Volt-ampere and voltage vs. brightness characteristics of electroluminescent thin films after 3 hours' operation at the highest voltage and at a given polarity. The structure of the film is shown in the lower right corner of the figure.

1 - Glass substrate,

2 - conducting layer,

3 - evaporated electroluminor,

4 - insulating SiO layer,

5 - aluminum electrode.

Card 3/3

PAVLOVSKIY, P. Ye.; GOLOVKINA, G. P.

Proteolytic transformations occurring during the aging ar curing of pork meat. Izv.vys.ucheb.zav.; pishch.tekh.no. 2:31-34 '64. (MIRA 17:5)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra biokhimii myasa.

GOLOVKINA, L.M., TAPTYKOVA, S.D.; KHOKHLOVA, Yu.M., [illegible]

Comparison of antibiotics produced by Actinomyces of the Fradiae group. Mikrobiologiia 33 no.[illegible] [illegible]-36 Mr-Ap '64.
(MIRA 17:12)

1. Institut mikrobiologii AN SSSR.

GOLOVKINA, M.T., kand.tekhn.nauk

Fermentation method of preparing the main semiprocessed products in the liqueur and vodka manufacture. Trudy LTIKHP 13:17-27 '57. (MIRA 13:6)

1. Kafedra obshchey i analiticheskoy khimii Leningradskogo tekhnologicheskogo instituta kholodil'noy promyshlennosti.
(Liquor industry)

GOLOVKINA, M.T.

Biochemical changes in polyphenolic substances during the fermentation of vegetable raw material in the liqueur and vodka industry. Biokhim. vin. no.5:134-142 '57. (MLRA 10:6)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti.
(Distilling industries) (Fermentation) (Phenols)

OZIMOV, B.V.; VAL'KOVA, M.K.; GOLOVKINA, M.T.

Reflection spectra used in the analysis of food products.
Trudy LTIKHP 15:81-86 '58. (MIRA 13:4)

1. Predstavlena Kafedroy neorganicheskoy i analiticheskoy khimii Leningradskogo tekhnologicheskogo instituta kholodil'noy promyshlennosti.
(Food--Spectra)

GOLOVKINA, M.T.

OZIMOV, B.V., kand. tekhn. nauk; VAL'KOVA, N.K., inzh.; GOLOVKINA, M.T., kand. tekhn. nauk.

Reflection spectra of solid fats. Masl.-zhir. prom. 24 no.2:10-11 '58. (MIRA 11:3)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti.

(Oils and fats--Spectra)

NOVOTEL'NOV, N.V.; GOLOVKINA, M.T.; STAVROVA, E.R.

Synergism between ascorbic acid and bioflavonoids. Nauch. dokl.vys.shkoly; biol.nauki no.1:137-141 '59. (MIRA 12:5)

1. Rekomendovana kafedroy mikrobiologii i biokhimii Leningradskogo tekhnologicheskogo instituta kholodil'noy promyshlennosti.
(ASCORBIC ACID) (FLAVONOIDS)

NOVOTEL'NOV, N.V.; GOLOVKINA, M.T.

Changes in the poly phenolic complex of wild rose fruits in the process of fermentation by pectinase. Izv.vys.ucheb.zav.; pishch. tekh. no.6:73-78 '61. (MIRA 15:2)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra biokhimii i mikrobiologii.
(Roses)(Pectinase)

GOLOVKINA, M.T.; NOVOTEL'NOV, N.V.; VSHELYAKI, T.N.; PAVLOVETS, N.M.

Antibiotic properties of vitamin preparations obtained from the wild rose fruit by the fermentation method. Izv.vys.ucheb.zav.; pishch.tekh. no.5:43-46 '63. (MIRA 16:12)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti, kafedra mikrobiologii i biokhimii.

CA GOLOVKINA, N.A.

11e

Lipolytic formation of soluble organic acids by Aspergillus niger. G. L. Seliber and N. A. Golovkina (Leningrad Inst Nat. Sci., Leningrad). *Mikrobiologiya* 20, 30-5(1951). Oxalic acid is formed by *A. niger* from fats such as olive oil or sunflower-seed oil. The source of N may be peptone, KNO_3 or NH_4 phosphate or NH_4 sulfate. Oxalic acid does not account for all the acidity, gluconic acids, and probably some other acids, are formed at the same time. The sharp drop in pH, due to lipolysis, was observed in all the test media.
Julian F. Smith

L 08213-67 EWT(m)/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AP6014504 (A,N) SOURCE CODE: UR/0317/66/000/004/0063/0066

AUTHOR: Lipin, A. (Candidate of chemical sciences; Engineer; Lieutenant colonel); Golovkina, N. (Engineer); Matveyeva, N. (Engineer)

ORG: None

TITLE: Use and application of corrosion protection

SOURCE: Tekhnika i vooruzheniye, no. 4, 1966, 63-66

TOPIC TAGS: corrosion protection, electrolyte, electrolytic deposition, steel, [illegible] METAL COATING, ZINC, CADMIUM

ABSTRACT: Various considerations on corrosion and preservation of metals are presented on the basis of experimental research and practical applications. The mechanism of electrochemical reactions in zinc and cadmium coatings, in phosphate and other oxide films is explained and illustrated. It is mentioned that the corrosion of cadmium coated surfaces can be 0.5 mm deep. The destruction of zinc films proceeds with a speed of 0.4 to 4 microns per year. In general, the electrolytic processes are more effective. A cadmium-zinc electrolyte containing in one liter 14 g of zinc sulphate, 12 g of cadmium sulphate, 55 g of caustic potash and 55 g of Trilon A is considered the most effective. The effect of the current density and of the concentration of zinc salts on the cathode coatings is evaluated and graphically illustrated. The cadmium-zinc electrolyte has the same throwing power as the potassium cyanide electrolyte. The favorable effect of Trilon A on the increase of the cathode current density is stressed. The stability of cadmium-zinc electrolyte is high. The physical properties of cadmium-zinc are characterized by a microhardness of about 40 kg/sq mm and by the disappearance of porosity in layers of 3 microns and

Card 1/2

L 08213-67

ACC NR: AP6014504

and thicker. A pyrophosphate electrolyte (9 gr of stannic sulfate, 8 gr of zinc sulphate, 190 g of sodium pyrophosphate, 1 g of citric acid and 1 g of ammonium nitrate per one liter) is considered the most stable for obtaining a tin-zinc coating. Better results were obtained with electrolytes where sulphates were replaced by stannic chlorides. The Trilon pyrophosphate electrolyte is considered the best for obtaining tin-cadmium coatings. One liter of this electrolyte contains 12 to 45 g cadmium sulphate, 15 g of stannic chloride, 60 g of sodium pyrophosphate, 25 to 85 g of Trilon A, 10 g of phenol and 5 to 8 ml of triethanolamine. Its high throw power and increase of current density are stressed. Corrosion-resistant properties of various coatings were tested and compared. The best results were obtained with cadmium-zinc coatings containing 18 to 20% of zinc. In general, mechanical strength of metals were little affected by coatings. Some examples for certain types of steel are cited. The most effective phosphate processes are summarized in a table indicating electrolyte solutions, processing temperatures and duration. In general, combined phosphate and cadmium films resist better against corrosion than ordinary phosphate coatings (as shown in a comparative diagram). Orig. art. has: 3 diagrams and 1 table.

SUB CODE: 07, 13/ SUBM DATE: None

Card 2/2 egh

GOLOVKINA, N.A.

SELIBER, G.L.; GOLOVKINA, N.A.

Effect of osmotic pressure on the formation of amylase by Aspergillus oryzae [with summary in English]. Mikrobiolog ia, 26 no.3:292-296 My-Je '57. (MIRA 10:10)

1. Gosudarstvennyy yestestvenno-nauchnyy institut im. P.F.Lesgafta, Leningrad.

(AMYLASES,
Aspergillus oryzae, eff. of osmotic pressure on synthesis (Rus))
(ASPERGILLUS, metabolism,
oryzae, amylase synthesis, eff. of osmotic pressure (Rus))

PREVO, Anatoliy Anatol'yevich; PEL'TSER, Sergey Oskarovich; KHODANOVICH, Ye.Ye., kand. sel'khoz. nauk, retsenzent; SAVEL'YEV, I.K., kand. sel'khoz. nauk, retsenzent; GOLOVKINA, N.M., prepod. sredney shkoly, retsenzent; YEMEL'YANOV, F.V., red.; YEFIMOV, A.I., red.; TSYPKO, R.V., tekhn. red.

[Poultry raising] Ptitsevodstvo; uchebnoe rukovodstvo dlia uchashchikhsia sel'skikh srednikh shkol s proizvodstvennym obucheniem. Moskva, Uchpedgiz, 1963. 189 p. (MIRA 16:10)

(Poultry)

KOLBANOVSKAYA, A.S.; MIKHAYLOV, V.V.; Prinimali uchastiye: YEFIMOVA, L.I.; DAVYDOVA, A.R.; GOLOVKINA, O.K.; BUGAYEVA, G.N.

Structural and mechanical properties of bitumens from various sources. Part 1: Viscosity, thermal and mechanical properties of road bitumens of various chemical compositions. Koll.zhur. 23 no.6:718-725 N-D '61. (MIRA 14:12)

1. Vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut, Moskva.
(Bitumen)

KOLBANOVSKAYA, A.S.; GOLOVKINA, O.K.

Chemical composition and properties of road petroleum asphalts. Khim.i tekh.topl.i masel 7 no.2:31-36 F '62. (MIRA 15:1)

1. Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut.
(Petroleum products) (Road materials)

KONYUSHENKO, A.T.; GOLOVKINA, R.V.; KONONOVA, V.I.; SHEVAKIN, Yu.F.

Investigating the resistance welding process of pipe with a 300-hertz frequency current. Avtom.svar. 17 no.1:21-24 Ja '64. (MIRA 17:3)

1. Moskovskiy trubnyy zavod (for Konyushenko, Golovkin, Kononova).
2. Moskovskiy institut stali i splavov (for Shevakin).

GOLOVKINA, T.V

MIKHALEV, V.A.; DOROKHOVA, M.I.; SMOLINA, N.Ye.; ZHELOKHOVTSEVA, A.M.; TIKHONOVA, O.Ya.; SKOLDINOV, A.P.; ARENDARUK, A.P.; SMOLIN, D.D.; GOLOVKINA, T.V.; SLONOVA, L.A.

Styrene as an initial product for synthomycetin and levomycetin production. Part 2: Synthesis of p-nitroacetophenone and p-nitro-α-bromacetophenone. Antibiotiki 4 no.4:21-24 Jl-Ag '59. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze (for Mikhalev, Dorokhova, Smolina, Zhelokhovtseva, Tikhonova). 2. Institut farmakologii i khimioterapii AMN SSSR (for Skoldinov, Arendaruk, Smolin, Golovkina, Slonova).

(CHLORAMPHENICOL chem)
(KETONES chem)

Golovkina, Ye. F.

GOLOVKINA, YE. F.

"Development of the Students' Thinking during Study of the High-School Course of History." Min Education RSFSR, Moscow Oblast Pedagogic Inst, Moscow, 1955. (Dissertation for the Degree of Candidate of Pedagogic Sciences)

SO: M-972, 20 Feb 56

GOLOVKO, A.

Tractors - Motors

Repairing the flywheel of the P-1[illegible] actuating motor. MTS 13, No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

GOLOVKO, A.

Tractors - Repairing

Repair of links in the S-80 and DT-54 tractors. MTS 13, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

GOLOVKO, A., red.; NEMYTOV, V., tekhn. red.

[Corn in Orlov Province] Kukuruza na orlovskikh poliakh. Orel, Orlovskoe knizhnoe izd-vo, 1960. 40 p. (MIRA 14:12)
(Orlov Province--Corn (Maize))

GOLOVKO, A. F.

"The Pathogenesis and Clinical Manifestations of Affection of the Nervous System During Helminthiasis." Cand Med Sci, L'vov State Medical Inst, L'vov, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, Jun 55

28(5) SOV/64-59-3-19/24

AUTHORS: Ovcharenko, B. G., Golovko, A. F., Vosvilov, N. M., Avilova, M. K.

TITLE: Experiment of Applying a Column of the Ammonia Synthesis With a Top GIAP-DATZ (Opyt eksploatatsii kolonn sinteza ammiaka s nasadkoy GIAP-DATZ)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 3, pp 82-85 (USSR)

ABSTRACT: Until recently the Dneprodzerzhinskiy azotnotukovyy zavod (Dneprodzerzhinsk Nitrogen Fertilizer Works) used a supplemented attachment according to Fauser with two tubular heat exchangers and a secondary pipe for supplying cold gas (Fig 1). It was found out however, that this attachment does not offer optimum temperature conditions. In 1950 a new type of attachment was developed in the GIAP by S. S. Lachinov and constructed in the DATZ in two constructional types (Fig 2). The attachment has two heat exchangers in the catalyst chamber, and 2 secondary pipes for the supply with cold gas, and it is called GIAP-DATZ (abbr. GD-2). Some data are given on the application of a column (D = 0.85, H = 14 m) with a attachment GD-2 and iron catalysts with two accelerators (K_2O and Al_2O_3) .

Card 1/2

Experiment of Applying a Column of the Ammonia Synthesis With a Top GIAP-DATZ

SOV/64-59-3-19/24

The results achieved after 1- and 6 months of its application (Table 1) show that Δ % NH_3 $\approx$ 12.5 (Δ NH_3 = difference in % of the NH_3 content before and after the column) and the maximum capacity amount to 120-125 t/day, while it only was 100 t/day with the old type. Corresponding experiments were carried out in order to examine the effect of the second secondary pipe for cold gas on the increase of the capacity after one year, the results are given (Table 2). A column with an attachment GD-2 can work very stably, also with a gas supply up to 30% through the second secondary cold gas pipe, this caused an increase in the capacity by 70%. Examinations carried out during 20 days on a column which already had worked for 1.5 months showed (Table 3) that 140 t NH_3/day are yielded with Δ %NH_3 $\approx$ 13 and with a gas circulation of about 70,000 Nm^3/hour, with the attachment GD-2 on the active catalyst. There are 2 figures and 3 tables.

Card 2/2

GOLOVKO, A.F.; RUD', L.V.; BUKHOVTSEV, P.P.; BUMATSENKO, A.A. (L'vov)

Early hospitalization of patients with acute disorders of cerebral circulation. Vrach. delo no.3:68-71 Mr '64. (MIRA 17:4)

1. Kafedra nervnykh bolezney L'vovskogo meditsinskogo instituta i nefrologicheskoye otdeleniye L'vovskoy oblastnoy klinicheskoy bol'nitsy.

L 33369-66 EEC(k)-2/EWT(1) AT/WW

ACC NR: AP6021436 SOURCE CODE: UR/0413/66/000/011/0038/0038

34
B

INVENTOR: Golovko, A. F.

ORG: none

TITLE: Electropneumatic a-c generator of the capacitive type. Class 21, No. 182219 [announced by Rostov Staff Engineering School im. Chief Marshal of the Artillery M. I. Nedelin (Rostovskoye vyssheye komandno-inzhenernoye uchilishche)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 38

TOPIC TAGS: electric generator, electropneumatic generator, a c generator

ABSTRACT: An electropneumatic a-c generator of the capacitor type is introduced in which the energy of a compressed gas is converted into electricity by mechanically

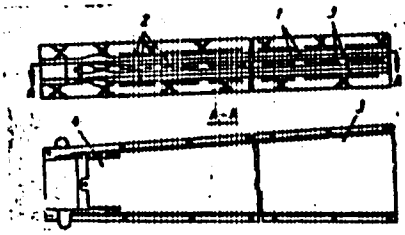


Fig. 1. Electropneumatic a-c generator of the capacitive type

1 - Channels; 2 - fixed plates coupled to load; 3 - elastic strip performing TW-type motions to which exciting voltage is supplied; 4 - reed gas distributor.

621.313.17

Card 1/2

L 33369-66
ACC NR: AP6021436

varying relative capacitances between the individual oppositely charged parts of the machine (see Fig. 1). To increase the use of the compressed gas energy, the generator is designed in the form of longitudinal channels with a rectangular cross section made of fixed insulated plates. The movable part consists of insulated strips placed inside the channels and performs TW-type motions under the action of gas pulses. Self-oscillating reed gas distributors, due to the action of aerodynamic forces, are mounted at the inlet to the channels. Orig. art. has: 1 figure. [JR]

SUB CODE: 10/ SUBM DATE: 24Jun65/ ATD PRESS: 5026

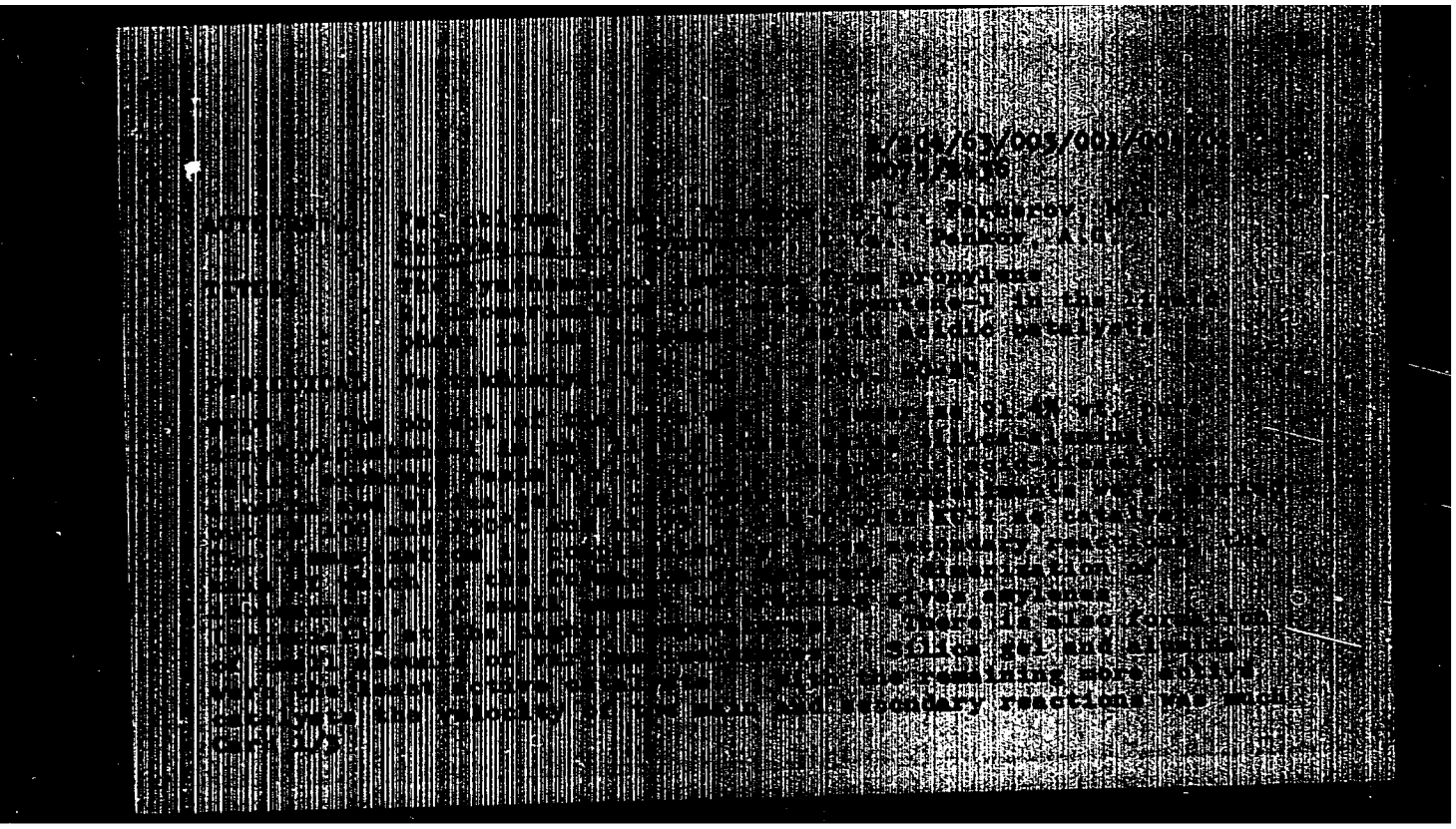
Card 2/2 JS

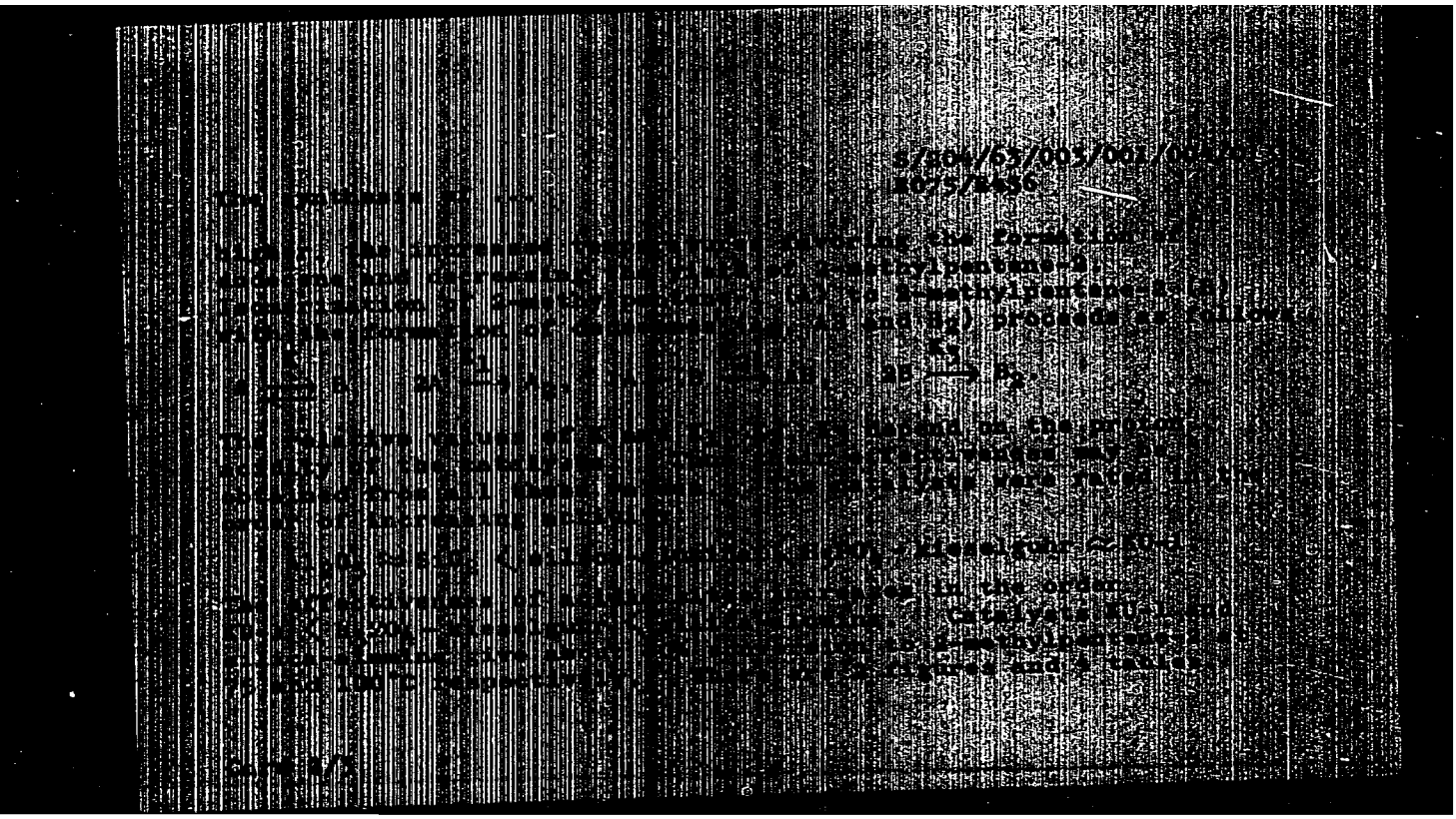
GOLOVKO, A.I.

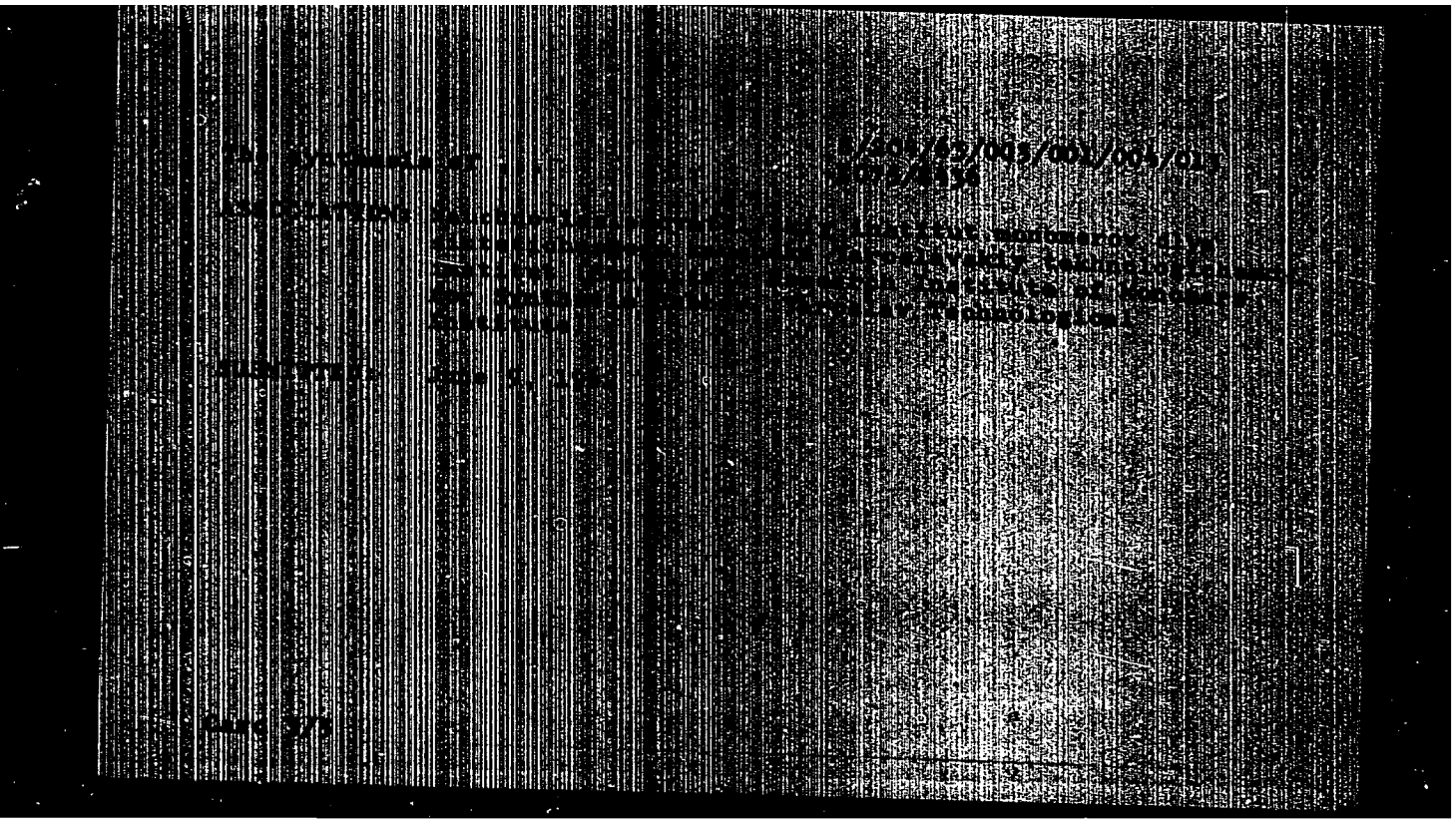
Hygienic evaluation of standard designs for schools and preschools. Gig. i san. 24 no.6:52-54 Je '59. (MIRA 12:8)

1. Iz Khar'kovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.

(SCHOOL HEALTH
hyg. evaluation of standard designs for schools & preschool institutions (Rus))







KOMAROVA, E.P. [Kamarova, E.P.]; GOLOVKO, A.I. [Halauko, A.I.]

Hydnaceae of White Russia. Vestsi AN BSSR. Ser. biial. nav. no.3:115-123 '65. (MIRA 18:11)